IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Matthias Muth
Group Art Unit: 2443
Serial No.: 10/517,246
Examiner: Fearer, Mark D.
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Confirmation No.: 3106
For: METHOD AND SYSTEM FOR SWITCHING BETWEEN SUBNETWORK OPERATION AND FULL NETWORK OPERATION

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

Sir/Madam:

This brief is in furtherance of Applicant's Notice of Appeal filed on March 24, 2009, appealing the decision of the Examiner dated October 20, 2008 finally rejecting claims 1-14.

I. Real Party in Interest

The real party in interest in this appeal is NXP B.V., High Tech Campus 60, 5656 AG Eindhoven, The Netherlands.

II. Related Appeals and Interferences

There are currently no related appeals or interference proceedings in progress that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the present Appeal.

III. Status of Claims

Claims 1-15 were originally filed on December 7, 2007. In a preliminary amendment filed on December 7, 2007, claim 15 was canceled, and claims 3 and 6-8 were amended. In response to the Office Action of March 31, 2008, claims 1-14 were amended. Claims 1-14 stand finally rejected and form the subject matter of the present appeal.

Claims 1-10 and 12-14 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,154,061 ("Boezen et al.") in view of U.S. Patent No. 5,475,687 ("Markkula, Jr. et al."). Claim 11 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Boezen et al. in view of Markkula, Jr. et al., and in further view of U.S. Patent No. 6,832,251 ("Gelvin et al.").

This Appeal is made with regard to pending claims 1-14.

IV. Status of Amendments

No amendments were filed subsequent to final rejection.

V. Summary of Claimed Subject Matter

The claimed invention includes a method for changing over a serially networked system, in particular a serial databus system, from a subnetwork operation to a full network operation (See lines 1-6 on page 1 of the Specification) and a serially networked system, which is intended to be changed over from a subnetwork operation to a full network operation (See lines 7-12 on page 1 of the Specification).

According to an embodiment, as recited in the independent claim 1, a method for changing over a serially networked system (100), in particular a serial databus system (See lines 27-29 on page 5 of the Specification), from a subnetwork operation, in which at least one node (20, 22, 24, 26, 28) and/or at least one user (30, 32, 34, 36, 38) of the system is in a state of reduced current consumption and is not addressed and/or not activated by the signal level of the data traffic on the system (See lines 10-12 and 32-34 on page 6, and lines 1-2 on page 7 of the Specification), to a full network operation, in which all the nodes and/or all the users of the system are addressed and/or activated by the signal level of the data traffic on the system (See lines 8-12 on page 7 of the Specification), characterized in that the system is changed over from the subnetwork operation to the full network operation through the detection of at least one defined, especially continuous and/or especially symmetrical signal level pattern (62, 64) in the data traffic on the system (See lines 17-24 on page 7 of the Specification).

According to an embodiment, as recited in the independent claim 4, a serially networked system (100) (See lines 27-29 on page 5 of the Specification), which is configured to be changed over from a subnetwork operation, in which at least one node (20, 22, 24, 26, 28) and/or at least one user (30, 32, 34, 36, 38) of the system is in a state of reduced current consumption and cannot be addressed and/or activated by the signal level of the data traffic on the system (See lines 10-12 and 32-34 on page 6, and lines 1-2 on page 7 of the Specification), to a full network operation, in which all the nodes and/or all the users of the system may be addressed and/or activated by the signal level of the data traffic on the system

(See lines 8-12 on page 7 of the Specification), characterized in that the changeover from the subnetwork operation to the full network operation takes place in the event of the detection of at least one defined, especially continuous and/or especially symmetrical signal level pattern (62, 64) in the data traffic on the system (See lines 17-24 on page 7 of the Specification).

VI. Grounds of Rejection to be Reviewed on Appeal

Whether claims 1-10 and 12-14 are unpatentable under 35 U.S.C. §103(a) over Boezen et al. in view of Markkula, Jr. et al.

Whether claim 11 is unpatentable under 35 U.S.C. §103(a) over Boezen et al. in view of Markkula, Jr. et al., and further in view of Gelvin et al.

VII. Argument

In the Final Office Action of October 20, 2008, the Examiner rejected claims 1-14 under 35 U.S.C. §103(a) over Boezen et al. in view of Markkula, Jr. et al. and/or Gelvin et al. However, the Examiner has failed to establish a *prima facie* case of obviousness for the independent claims 1 and 4, as explained below. Thus, the independent claims 1 and 4 and the dependent claims 2, 3 and 5-14 are not unpatentable under 35 U.S.C. §103(a) over Boezen et al. in view of Markkula, Jr. et al. and/or Gelvin et al.

A. Rejection of Claims 1 and 4 Under 35 U.S.C. §103(a)

The independent claims 1 and 4 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Boezen et al. in view of Markkula, Jr. et al. However, the Examiner has failed to establish a *prima facie* case of obviousness for the independent claims 1 and 4. Thus, the independent claims 1 and 4 are not obvious over Boezen et al. in view of Markkula, Jr. et al.

The independent claim 1 recites in part "*characterized in that the system is*

changed over from the subnetwork operation to the full network operation through the detection of at least one defined, especially continuous and/or especially symmetrical signal level pattern in the data traffic on the system," where the subnetwork operation is described as "*in which at least one node and/or at least one user of the system is in a state of reduced current consumption and is not addressed and/or not activated by the signal level of the data traffic on the system*." These limitations are not disclosed in the cited references of Boezen et al. and Markkula, Jr. et al. Thus, even if the teachings of Boezen et al. and Markkula, Jr. et al. are combined, the resulting combination would not produce a system that includes such limitations of the independent claim 1. Consequently, the Examiner has failed to establish a *prima facie* case of obviousness for the independent claim 1.

On pages 3 and 4 of the Final Office Action, the Examiner correctly states that the cited reference of Boezen et al. "fails to disclose a method of subnetting, a serial databus, or reduced consumption states." However, the Examiner then apparently asserts that the cited reference of Markkula, Jr. et al. discloses these features.

As noted by the Examiner on page 4 of the Final Office Action, the cited reference of Markkula, Jr. et al. discloses a subnetwork and a full network. The subnetwork is defined in column 7, lines 4-8, of Markkula, Jr. et al. as follows: "A subnetwork comprises all the cells having the same system identification (system ID). For example, all the cells in a single family home may have the same system ID. Therefore, the channels of FIG. 4 may be part of the same subnetwork in that they share the same system ID." However, there is no mention of a node or a user of the network system that is **in a state of reduced current consumption** in the subnetwork. Thus, the cited reference of Markkula, Jr. et al. does not disclose a "*subnetwork operation, in which at least one node and/or at least one user of the system is* ***in a state of reduced current consumption***" (emphasis added), as recited in the independent claim 1. Since the cited reference of Markkula, Jr. et al. fails to disclose the claimed "*subnetwork operation,*" the cited reference of Markkula, Jr.

et al. also does not disclose the limitation of "*characterized in that the system is changed over from the subnetwork operation to the full network operation...,*" where "*the subnetwork operation*" is defined as "*in which at least one node and/or at least one user of the system is in a state of reduced current consumption...*," as recited in the independent claim 1.

In addition, the cited reference of Markkula, Jr. et al. does not disclose changing over from the subnetwork to the full network "*through the detection of at least one defined, especially continuous and/or especially symmetrical signal level pattern in the data traffic on the system,*" as recited in the independent claim 1. The cited reference of Markkula, Jr. et al. fails to disclose any process of changing from a subnetwork operation to a full network operation, as defined in the independent claim 1. In particular, the cited reference of Markkula, Jr. et al. fails to disclose any detection of a continuous and/or symmetrical signal level pattern to change the system from a subnetwork operation to a full network operation, as defined in the independent claim 1. The cited reference of Markkula, Jr. et al. does describe coding using different patterns of bits, as explained in column 16, lines 15-59. However, these patterns are not used to change the system from a subnetwork operation to a full network operation. Therefore, the cited reference of Markkula, Jr. et al. does not disclose the limitations of "*characterized in that the system is changed over from the subnetwork operation to the full network operation through the detection of at least one defined, especially continuous and/or especially symmetrical signal level pattern in the data traffic on the system,*" as recited in the independent claim 1.

Since the cited references of Boezen et al. and Markkula, Jr. et al. fail to disclose all the claim limitations, the independent claim 1 is not obvious even if the teachings of Boezen et al. and Markkula, Jr. et al. are combined. Thus, the Examiner has failed to establish a *prima facie* case of obviousness for the independent claim 1 using the cited references of Boezen et al. and Markkula, Jr. et al.

The above remarks are also applicable to the independent claim 4, which recites limitations similar to those of the independent claim 1. Consequently, the Examiner has also failed to establish a *prima facie* case of obviousness for the independent claim 4 using the cited references of Boezen et al. and Markkula, Jr. et al.

B. Rejection of Dependent Claims 2, 3 and 5-14 Under 35 U.S.C. §103(a)

Each of the dependent claims 2, 3 and 5-14 depends on one of the independent claims 1 and 4. As such, these dependent claims include all the limitations of their respective base claims. Thus, these dependent claims are patentable for at least the same reasons as their respective base claims. Furthermore, the dependent claims 2 and 5 are allowable for additional reasons.

The dependent claim 2 recites "*characterized in that the signal level pattern does not otherwise occur in the data traffic*," which is not disclosed Boezen et al. and Markkula, Jr. et al. On page 10 of the Final Office Action, the Examiner alleges that this limitation of claim 2 is disclosed in column 5, lines 19-38, of Markkula, Jr. et al. However, the cited passage of Markkula, Jr. et al. does not disclose using a "*signal level pattern*" that "*does not otherwise occur in the data traffic*." Rather, the cited passage of Markkula, Jr. et al. merely discloses transmitting and receiving messages, data and/or signals, which presumably occur in the data traffic. In addition, the messages, data and/or signals are not used to change the network from a subnetwork operation to a full network operation. Consequently, Markkula, Jr. et al. fails to disclose all the limitations of claim 2. Thus, the Examiner has also failed to establish a *prima facie* case of obviousness for the dependent claim 2 using the cited references of Boezen et al. and Markkula, Jr. et al.

The above remarks are also applicable to the dependent claim 5, which recites limitations similar to those of the dependent claim 2. Consequently, the Examiner has also failed to establish a *prima facie* case of obviousness for the

dependent claim 5 using the cited references of Boezen et al. and Markkula, Jr. et al.

SUMMARY

The Examiner has failed to establish a *prima facie* case of obviousness for the independent claim 1 using the cited references of Boezen et al. and Markkula, Jr. et al. since neither of these references discloses the claimed limitations of "*characterized in that the system is changed over from the subnetwork operation to the full network operation through the detection of at least one defined, especially continuous and/or especially symmetrical signal level pattern in the data traffic on the system,*" where the subnetwork operation is described as "*in which at least one node and/or at least one user of the system is in a state of reduced current consumption and is not addressed and/or not activated by the signal level of the data traffic on the system.*" The Examiner has similarly failed to establish a *prima facie* case of obviousness using the cited references of Boezen et al. and Markkula, Jr. et al. for the independent claim 4, which recites similar limitations as claim 1. The Examiner has also failed to establish a *prima facie* case of obviousness for the dependent claims 2, 3 and 5-14 since these dependent claims are patentable for at least the same reasons as their respective base claims.

For all the foregoing reasons, it is earnestly and respectfully requested that the Board of Patent Appeals and Interferences reverse the rejections of the Examiner regarding claims 1-14, so that this case may be allowed and pass to issue in a timely manner.

Respectfully submitted,
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VIII. Claims Appendix

1. A method for changing over a serially networked system, in particular a serial databus system, from subnetwork operation, in which at least one node and/or at least one user of the system is in a state of reduced current consumption and is not addressed and/or not activated by the signal level of the data traffic on the system, to full network operation, in which all the nodes and/or all the users of the system are addressed and/or activated by the signal level of the data traffic on the system, characterized in that the system is changed over from the subnetwork operation to the full network operation through the detection of at least one defined, especially continuous and/or especially symmetrical signal level pattern in the data traffic on the system.

2. A method as claimed in claim 1, characterized in that the signal level pattern does not otherwise occur in the data traffic.

3. A method as claimed in claim 1, characterized in that the signal level pattern is detected by at least one node in the reduced current consumption state and/or by at least one user in the reduced current consumption state.

4. A serially networked system, which is configured to be changed over from subnetwork operation, in which at least one node and/or at least one user of the system is in a state of reduced current consumption and cannot be addressed and/or activated by the signal level of the data traffic on the system, to full network operation, in which all the nodes and/or all the users of the system may

be addressed and/or activated by the signal level of the data traffic on the system, characterized in that the changeover from the subnetwork operation to the full network operation takes place in the event of the detection of at least one defined, especially continuous and/or especially symmetrical signal level pattern in the data traffic on the system.

5. A system as claimed in claim 4, characterized in that the signal level pattern does not otherwise occur in the data traffic.

6. A system as claimed in claim 4, characterized in that the signal level pattern is detected by at least one node and/or user in the reduced current consumption state.

7. A system as claimed in claim 4, characterized in that the system comprises at least one Controller Area Network (CAN) bus.

8. A system as claimed in claim 4, characterized in that the user takes the form of at least one system chip unit, in particular at least one system chip unit, and/or at least one microcontroller unit provided for carrying out at least one application.

9. A transceiver unit, in particular for carrying out a method as claimed in claim 1, characterized in that the transceiver unit is connected to at least one Controller Area Network (CAN) bus, and is in communication with at least one microcontroller unit which is provided to carry out at least one application.

10. A transceiver unit as claimed in claim 9, characterized by at least one control logic associated with the transceiver unit and/or implemented in the transceiver unit.

11. A voltage regulator which is connected to at least one battery unit, and which is in communication with at least one transceiver unit, in particular as claimed in claim 9, which voltage regulator is configured to supply a voltage to at least one microcontroller unit, provided to execute at least one application, in the event of detection, by the transceiver unit, of at least one defined, in particular continuous and/or in particular symmetrical signal level pattern in at least one incoming message associated with at least one application and occurring on at least one Controller Area Network (CAN) bus.

12. A chip unit, in particular a system chip unit, for addressing and/or activating at least one microcontroller unit which is provided to carry out at least one application and which is associated with at least one Controller Area Network (CAN) bus; characterized by at least one transceiver unit as claimed in claim 9, and at least one voltage regulator, which is connected to at least one battery unit, and which is in communication with at the at least one transceiver unit, the voltage regular being configured to supply a voltage to the at least one microcontroller unit.

13. A microcontroller unit provided to carry out at least one application and associated with at least one Controller Area Network (CAN) bus, which

microcontroller unit is to be supplied with a voltage only if at least one defined, in particular continuous and/or in particular symmetrical signal level pattern is detected in at least one incoming message associated with at least one application and occurring on the databus, by at least one transceiver unit, in particular as claimed in claim 9.

14. A microcontroller unit as claimed in claim 13, characterized in that the microcontroller unit may be activated by the transceiver unit.

IX. Evidence Appendix

NONE

X. Related Proceedings Appendix

NONE